AMENDMENTS TO THE CLAIMS:

1. (Cancelled) A method of receiving data in a wireless communication system, the method comprising:

processing received signals through a RAKE processing element to generate RAKE processed signals;

measuring a first quality metric of the RAKE processed signals;

comparing the first quality metric of the RAKE processed signals to a first threshold value; and

when the first quality metric exceeds the first threshold value, enabling an equalizer to operate concurrently with the RAKE processing element.

2. (Cancelled) The method of claim 1 further comprising:

measuring a correction metric of the RAKE processed signals; and

comparing the correction metric to a second threshold value, wherein enabling the equalizer further comprises:

when the first quality metric exceeds the first threshold value and the correction metric exceeds the second threshold value, enabling an equalizer.

3. (Cancelled) The method of claim 2, wherein the first quality metric is a signal to noise ratio.

4. (Cancelled) The method of claim 2, wherein the correction metric is a cross-correlation measure.

5. (Cancelled) The method of claim 4, wherein the cross-correlation is measured between pilot bursts.

6. (Cancelled) The method of claim 2, wherein after enabling the equalizer: the method further comprises:

measuring a first quality metric of the equalizer processed signals;

measuring a next quality metric of the RAKE processed signals;

comparing the first quality metric of the equalizer processed signals to the next quality metric of the RAKE processed signals; and

when the first quality metric of the equalizer processed signals is less than the next quality metric of the RAKE processed signals disabling the equalizer.

7. (Cancelled) A method of receiving data in a wireless communication system, the method comprising:

processing received signals through a RAKE processing element to generate RAKE processed signals; and

periodically testing operating conditions by initiating a test mode once on a sample period, comprising:

processing received signals through an equalizer to generate equalizer processed signals;

measuring a first quality metric of the RAKE processed signals;

measuring the first quality metric of the equalizer processed signals;

comparing the first quality metric of the RAKE processed signals to the first quality metric of the equalizer processed signals; and

determining whether to enable the equalizer, to operate concurrently with the RAKE processing element, based on the comparison.

8. (Cancelled) The method of claim 7, wherein if the first quality metric of the RAKE processed signals exceeds the first quality metric of the equalizer processed signals by a margin amount, then determining whether to enable the equalizer based on the comparison comprises determining to disable the equalizer.

9. (Cancelled) The method of claim 8, wherein if the first quality metric of the RAKE processed signals does not exceed the first quality metric of the equalizer processed signals by the margin amount, then determining whether to enable the equalizer based on the comparison comprises determining to enable the equalizer.

10. (Cancelled) The method of claim 9, wherein the first quality metric is a signal to interference and noise ratio.

11. (Cancelled) The method of claim 10, wherein when the equalizer is enabled, the method further comprises:

terminating testing; processing received signals through the equalizer to generate equalizer processed signals;

measuring the first quality metric of the RAKE processed signals;

measuring the first quality metric of the equalizer processed signals;

comparing the first quality metric of the RAKE processed signals to the first quality metric of the equalizer processed signals; and

determining whether to disable the equalizer based on the comparison.

12. (Cancelled) The method of claim 11, wherein if the first quality metric of the RAKE processed signals exceeds the first quality metric of the equalizer processed signals by a margin amount, then determining whether to disable the equalizer based on the comparison comprises determining to disable the equalizer.

13. (Cancelled) The method of claim 12, wherein if the first quality metric of the RAKE processed signals does not exceed the first quality metric of the equalizer processed signals by the margin amount, then determining whether to disable the equalizer based on the comparison comprises determining to enable the equalizer.

14. (Cancelled) The method of claim 13, wherein periodically testing operating conditions, further comprises: initiating the testing once in a sample period, wherein the sample period is a function of a time constant of an equalizer filter.

15. (Cancelled) An apparatus for receiving data in a wireless communication system, the method comprising:

means for processing received signals through a RAKE processing element to generate RAKE processed signals;

means for measuring a first quality metric of the RAKE processed signals;

means for comparing the first quality metric of the RAKE processed signals to a first threshold value; and

means for enabling an equalizer, to operate concurrently with the RAKE processing element, when the first quality metric exceeds the first threshold value.

16. (Cancelled) A receiver in a wireless communication system, the receiver comprising:

processing element for processing computer-readable instructions; and

memory storage device adapted to store computer-readable instructions comprising:

a first set of computer-readable instructions for processing received signals through a RAKE processing element to generate RAKE processed signals;

a first set of computer-readable instructions for measuring a first quality metric of the RAKE processed signals;

a first set of computer-readable instructions for comparing the first quality metric of the RAKE processed signals to a first threshold value; and

a first set of computer-readable instructions for enabling an equalizer when the first quality metric exceeds the first threshold value.

17. (Cancelled) An apparatus for receiving data in a wireless communication system, the apparatus comprising:

means for processing received signals through a RAKE processing element to generate RAKE processed signals; and

means for periodically testing operating conditions, comprising:

means for processing received signals through an equalizer to generate equalizer processed signals;

means for measuring a first quality metric of the RAKE processed signals;

means for measuring the first quality metric of the equalizer processed signals;

means for comparing the first quality metric of the RAKE processed signals to the first quality metric of the equalizer processed signals; and

means for determining whether to enable the equalizer, to operate concurrently with the RAKE processing element, based on the comparison.

18. (Cancelled) A receiver in a wireless communication system, the receiver comprising:

processing element for implementing computer-readable instructions; and memory storage device for storing computer-readable instructions for:

processing received signals through a RAKE processing element to generate RAKE processed signals; and periodically testing operating conditions by:

processing received signals through an equalizer to generate equalizer

processed signals; measuring a first quality metric of the RAKE processed signals;

measuring the first quality metric of the equalizer processed signals; comparing the first quality metric of the RAKE processed signals to the first quality metric of the equalizer processed signals; and

determining whether to enable the equalizer based on the comparison.

19. (Cancelled) A wireless communication apparatus, comprising: a RAKE receiver adapted to receive a signal and generate an estimate of the received signal;

an equalizer; and

an equalization controller adapted to control operation of the equalizer in response to the estimate from the RAKE receiver.

20. (Cancelled) The apparatus as in claim 19, wherein the equalization controller enables the equalizer when a channel quality measure of the estimate is above a threshold value.

21. The apparatus as in claim 20, wherein the equalization controller enables the equalizer when the channel quality measure of the estimate is above the threshold and a first correlation of the estimate is greater than a second correlation of an equalized estimate generated by the equalizer.

22. (Cancelled) The apparatus as in claim 21, wherein the first correlation and the second correlation are based on received pilot signals.

23. The apparatus as in claim 19, wherein the equalization controller disables the equalizer when a channel quality measure of the estimate from the RAKE receiver is greater than a channel quality measure of an equalized estimate generated by the equalizer.

24. (Cancelled) The apparatus as in claim 19, wherein the equalization controller periodically enables the equalizer to compare an equalized estimate generated by the equalizer to the estimate from the RAKE receiver.

25. (Cancelled) The apparatus as in claim 24, wherein the equalization controller compares channel quality measures of the equalized estimate generated by the equalizer and the estimate from the RAKE receiver.

26. (Cancelled) The apparatus as in claim 24, wherein the equalization controller compares channel velocity of the equalized estimate generated by the equalizer and the estimate from the RAKE receiver.

27. (Cancelled) The apparatus as in claim 19, wherein the equalizer is adapted to operate in a first operating mode and in a second test mode when enabled.

28. (Cancelled) The apparatus as in claim 27, wherein the equalizer transitions from the second test mode to the first operating mode when a channel quality measure of an equalized estimate generated by the equalizer is greater than a channel quality measure of the estimate from the RAKE receiver.

29. (Cancelled) The apparatus as in claim 28, wherein the equalization controller disables the equalizer when a signal-to-noise ratio of the estimate from the RAKE receiver is greater than an equalized estimate from the equalizer.

30. (Cancelled) The apparatus as in claim 19, wherein the apparatus has two operating modes, comprising:

a first mode wherein the RAKE receiver is enabled and the equalizer is disabled;

a second mode wherein the RAKE receiver and equalizer are enabled.

31. (Cancelled) The apparatus as in claim 19, wherein the apparatus is adapted for two configurations, comprising:

a first configuration wherein the RAKE receiver is enabled and the equalizer is disabled;

a second configuration wherein the RAKE receiver and equalizer are enabled.

32. (Cancelled) The apparatus as in claim 30, wherein the apparatus has a third operating mode, comprising:

a test mode wherein the equalizer is enabled for a sample period and an equalized estimate compared to the estimate from the RAKE receiver.

33. (Cancelled) A method of receiving data in a wireless communications system, comprising:

processing received signals through only a RAKE processing element to generate processed signals;

comparing a quality metric of the RAKE processed signals to a threshold value; and

powering an equalizer to process the received signals concurrently with the RAKE processing element, when the quality metric exceeds the threshold value.

34. (Cancelled) A method of receiving data in a wireless communication system, comprising:

comparing a first metric associated with a RAKE processing element to a second metric associated with an equalizer; and

based on said comparing, determining whether to transition from one of first and second modes of data reception to the other of said first and second modes of data reception;

wherein said first mode of data reception is defined by a first combination of respective operational states of the RAKE processing element and the equalizer;

wherein said second mode of data reception is defined by a second combination of respective operational states of the RAKE processing element and the equalizer; and

wherein said first combination of operational states differs from said second combination of operational states.

35. (Cancelled) The method of Claim 34, wherein the RAKE processing element and the equalizer are enabled for operation concurrently in said first mode of data reception.

36. (Cancelled) The method of Claim 35, wherein the RAKE processing element is enabled for operation and the equalizer is disabled from operation in said second mode of data reception.

37. (Cancelled) The method of Claim 34, wherein said first and second metrics are respective wireless communication channel metrics.

38. (Cancelled) The method of Claim 37, wherein said wireless communication channel metrics are channel quality metrics.

39. (Cancelled) The method of Claim 38, wherein each of said channel quality metrics includes signal-to-noise ratio information.

40. (Currently Amended) A method of receiving data in a wireless communication system, comprising:

comparing a first metric associated with a RAKE processing element to a second metric associated with an equalizer, wherein said first and second metrics are respective wireless communication channel metrics; and

based on said comparing, determining whether to transition from one of first and second modes of data reception to the other of said first and second modes of data reception;

wherein said first mode of data reception is defined by a first combination of respective operational states of the RAKE processing element and the equalizer;

wherein said second mode of data reception is defined by a second combination of respective operational states of the RAKE processing element and the equalizer; ~~and~~

wherein said first combination of operational states differs from said second combination of operational states; and~~.~~

~~The method of Claim 37,~~ wherein said wireless communication channel metrics are channel speed metrics.

41. (Original) The method of Claim 40, wherein each of said channel speed metrics includes signal correlation information.

42. (Cancelled) The method of Claim 37, wherein each of said wireless communication channel metrics includes signal correlation information.

43. (Currently Amended) A method of receiving data in a wireless communication system, comprising:

comparing a first metric associated with a RAKE processing element to a second metric associated with an equalizer; and

based on said comparing, determining whether to transition from one of first and second modes of data reception to the other of said first and second modes of data reception;

wherein said first mode of data reception is defined by a first combination of respective operational states of the RAKE processing element and the equalizer;

wherein said second mode of data reception is defined by a second combination of respective operational states of the RAKE processing element and the equalizer; ~~and~~

wherein said first combination of operational states differs from said second combination of operational states; and

~~The method of Claim 34,~~ wherein said comparing includes comparing one of said first and second metrics to a biased version of the other of said first and second metrics.

44. (Original) The method of Claim 43, wherein said one metric is said first metric.

45. (Original) The method of Claim 43, wherein said one metric is said second metric.

46. (Currently Amended) A method of receiving data in a wireless communication system, comprising:

comparing a first metric associated with a RAKE processing element to a second metric associated with an equalizer; and

based on said comparing, determining whether to transition from one of first and second modes of data reception to the other of said first and second modes of data reception;

wherein said first mode of data reception is defined by a first combination of respective operational states of the RAKE processing element and the equalizer;

wherein said second mode of data reception is defined by a second combination of respective operational states of the RAKE processing element and the equalizer; ~~and~~

wherein said first combination of operational states differs from said second combination of operational states and;

~~The method of Claim 34,~~ wherein said one mode of data reception is a periodically activated test mode in which the RAKE processing element and the equalizer are enabled for operation concurrently.

47. (Original) The method of Claim 46, wherein the RAKE processing element is enabled for operation and the equalizer is disabled from operation in said other mode of data reception.

48. (Original) The method of Claim 46, including periodically transitioning from said other mode of data reception to said one mode of data reception.

49. (Original) The method of Claim 48, wherein the RAKE processing element is enabled for operation and the equalizer is disabled from operation in said other mode of data reception.

50. (Original) A wireless communication apparatus, comprising:

an input for receiving data signals via a wireless communication link;

a RAKE processing element coupled to said input;

an equalizer coupled to said input and co-operable with said RAKE processing element to define first and second modes of data reception in said wireless communication apparatus; and

a controller coupled to said RAKE processing element and said equalizer, said controller making a determination of whether said wireless communication apparatus is to transition from one of said first and second modes of data reception to the other of said first and second modes of data reception, said controller making said determination based on a comparison of a first metric associated with said RAKE processing element to a second metric associated with said equalizer;

wherein said first mode of data reception is defined by a first combination of respective operational states of the RAKE processing element and the equalizer;

wherein said second mode of data reception is defined by a second combination of respective operational states of the RAKE processing element and the equalizer; and

wherein said first combination of operational states differs from said second combination of operational states.

51. (Original) The apparatus of Claim 50, wherein the RAKE processing element and the equalizer are enabled for operation concurrently in said first mode of data reception.

52. (Original) The apparatus of Claim 51, wherein the RAKE processing element is enabled for operation and the equalizer is disabled from operation in said second mode of data reception.

53. (Original) The apparatus of Claim 50, wherein said one mode of data reception is a periodically activated test mode in which the RAKE processing element and the equalizer are enabled for operation concurrently.

54. (Original) The apparatus of Claim 53, wherein the RAKE processing element is enabled for operation and the equalizer is disabled from operation in said other mode of data reception.

55. (Original) The apparatus of Claim 53, including periodically transitioning from said other mode of data reception to said one mode of data reception.

56. (Original) The apparatus of Claim 55, wherein the RAKE processing element is enabled for operation and the equalizer is disabled from operation in said other mode of data reception.

57. (Original) The apparatus of Claim 50, wherein said first and second metrics are respective wireless communication channel metrics.

58. (Original) The apparatus of Claim 57, wherein said wireless communication channel metrics are channel quality metrics.

59. (Original) The apparatus of Claim 58, wherein each of said channel quality metrics includes signal-to-noise ratio information.

60. (Original) The apparatus of Claim 57, wherein said wireless communication channel metrics are channel speed metrics.

61. (Original) The apparatus of Claim 60, wherein each of said channel speed metrics includes signal correlation information.

62. (Original) The apparatus of Claim 57, wherein each of said wireless communication channel metrics includes signal correlation information.

63. (Original) The apparatus of Claim 50, wherein said comparing includes comparing one of said first and second metrics to a biased version of the other of said first and second metrics.

64. (Original) The apparatus of Claim 63, wherein said one metric is said first metric.

65. (Original) The apparatus of Claim 63, wherein said one metric is said second metric.

66. (Cancelled) An apparatus for receiving data in a wireless communication system, comprising:

means for comparing a first metric associated with a RAKE processing means to a second metric associated with an equalizing means; and

means for determining, based on said comparing, whether to transition from one of first and second modes of data reception to the other of said first and second modes of data reception;

wherein said first mode of data reception is defined by a first combination of respective operational states of the RAKE processing means and the equalizing means;

wherein said second mode of data reception is defined by a second combination of respective operational states of the RAKE processing means and the equalizing means; and

wherein said first combination of operational states differs from said second combination of operational states.

67. (Cancelled) A computer program product in a wireless communication system, comprising:

computer readable medium storing code therein, said code comprising:

instructions causing a computer to compare a first metric associated with a RAKE processing element to a second metric associated with an equalizer;

instructions causing a computer to determine, based on said comparing, whether to transition from one of first and second modes of data reception to the other of said first and second modes of data reception;

wherein said first mode of data reception is defined by a first combination of respective operational states of the RAKE processing element and the equalizer;

wherein said second mode of data reception is defined by a second combination of respective operational states of the RAKE processing element and the equalizer; and

wherein said first combination of operational states differs from said second combination of operational states.